

An *in vitro* Vesicle Formation Assay to Analyze Protein Sorting at the *trans* Golgi Network

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The *trans*-Golgi network (TGN) is an essential transport hub in the secretory transport pathway. To ensure the fidelity of protein transport, eukaryotic cells employ a number of molecular machineries to mediate sorting of specific cargo molecules into transport vesicles at the TGN. Although significant progress has been achieved, the spectrum of cargo proteins that depends on a specific cargo sorting machinery to be incorporated into transport vesicles remains largely unclear. Moreover, a transport vesicle should not only contain the correct cargo molecules but also proteins that mediate targeting of vesicles to the correct destination. Despite their importance, proteins that are specifically co-enriched with a specific cargo protein in transport vesicles remain largely understudied. In my presentation, I will talk about utilizing an *in vitro* assay that reconstitutes release of cargo proteins into transport vesicles to investigate these important aspects.